



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|-------------|----------------------|---------------------|------------------|
| 10/591,466            | 04/17/2008  | Claude Schlachter    | 016906-0542         | 1863             |
| 22428                 | 7590        | 04/08/2011           | EXAMINER            |                  |
| FOLEY AND LARDNER LLP |             |                      | RUSSELL, DEVON      |                  |
| SUITE 500             |             |                      |                     |                  |
| 3000 K STREET NW      |             |                      | ART UNIT            | PAPER NUMBER     |
| WASHINGTON, DC 20007  |             |                      | 3785                |                  |
|                       |             |                      | MAIL DATE           | DELIVERY MODE    |
|                       |             |                      | 04/08/2011          | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/591,466             | SCHLACHTER, CLAUDE  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | DEVON RUSSELL          | 4166                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 06 April 2010.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-10 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 3/1/06; 4/6/10

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 3 recite: "the air guiding duct runs largely rectilinearly and without deflection." The scope of the claim is indefinite because it is unclear how rectilinear the duct must be and how much deflection is contemplated.

Claim 1 recites "An air conditioning device for climate control of a space, in particular, a vehicle interior space..." it is unclear if the space or the vehicle interior space is claimed.

Claims 2-10 are also rejected as depending from claim 1.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Vincent (US 2002/0157811 A1).

Regarding claim 1, Vincent discloses an air conditioning device for climate control of a vehicle (Para. [0001]) having a heat exchanger (11) within a duct (20, 22) and a heating device (24) downstream of the heat exchanger (Fig. 1). The duct (22) runs rectilinearly and without deflection between the heat exchanger and heating device (Fig. 1).

Regarding claim 2, Vincent discloses a variably closable (37) bypass duct (46) for feeding cold air (F1) in the air guiding duct and parallel to the heating device (Fig. 1).

Regarding claim 3, Vincent discloses that the air guiding duct (20) runs rectilinearly and without deflection between the heat exchanger and the bypass duct (Fig. 1).

Regarding claim 4, Vincent discloses a closure device (37) variably adjustable between closed and open positions (Para. [0040] lines 4-6) arranged within the bypass duct (Fig. 1)

Regarding claim 5, Vincent discloses a closure device (38) variably adjustable between closed and open positions (Para. [0040] lines 6-8) upstream of the heating device (Fig. 1) and closure devices (52, 53) variably adjustable between closed and open positions (Figs. 4-5) downstream of the heating device. Both are for metering warm air.

Regarding claim 6, Vincent further discloses that the closure devices in the warm air duct (38, 52, 53) are formed of a plurality of pivoting flaps coupled together (Fig. 1, 38 is comprised of two flaps on either side of an axis; Fig. 6, 52 and 53 are formed of multiple flaps 54 and 55 pivoting around a common axis).

Regarding claim 7, Vincent further discloses that the closure devices in the warm air duct (38, 52, 53) is formed from one or more flaps which can be moved (Figs. 1 and 6).

Regarding claims 8 and 9, Vincent further discloses a stratification duct (end of 46 beyond 52, 53) downstream of the bypass duct (Fig. 1). The stratification duct branches off a variably adjustable (Fig. 4; adjustable by 52, 53) proportion of cold air flow (F1) from the bypass duct. As per claim 8, in a first position of a downstream flap (52, 53) mixes the cold air with a warm air flow (49, F2; Para. [0044] and [0049]; if both sets of flaps 52 and 53 are partially opened, the cold and warm air flows will mix together). As per claim 9, in a second position the variably adjustable proportion of the cold air flow from the bypass duct is mixed back with the cold air flow from the bypass duct again (Para. [0049] lines 12-13; in the all cold position, the separated cold air flows through channels 46 from the bypass are mixed together without any warm air).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vincent.

Vincent discloses all the limitations of the claimed invention except that the stratification duct has a V-shaped cross section. It would have been an obvious matter of design choice to a person of ordinary skill in the art at the time of the invention to make the cross section V-shaped as no significance has been given to the cross sectional shape in the claims or specification.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vincent in view of Ogawa et al. (JP 04-095520 A).

Vincent discloses all the limitations of the claimed invention except that the stratification duct has a V-shaped cross section. Ogawa et al. disclose in Figures 6 and 7 a stratification duct which separates cold air (Fig. 5; d) into separate streams to be alternatively mixed with warm air streams (Fig. 5; c) or back only with cold air streams depending on the positions of flaps (Fig. 1; 3, 10). The stratification duct has a V-shaped cross section in both a cross section along the air flow directions (Fig. 6) and perpendicular to the air flow directions (Fig. 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the air conditioning device of Vincent with the V-shaped duct, as taught by Ogawa et al., in order to increase the turbulence and therefore mixing of the cold and warm flows.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US 7,546,868 to Klein et al. discloses an air-conditioner housing.

US 6,889,661 to Perry et al. discloses a mixing device for an air conditioning system.

US 7,779,900 to Ito et al. discloses an air conditioner for vehicle use.

US 7,699,096 to Naruse et al. discloses an air conditioner for vehicle use.

US 7,540,321 to Simmet et al. discloses an air conditioner for a vehicle.

US 5,988,263 to Schwarz discloses a mixing device for air an conditioning system.

US 5,551,505 to Freeland discloses a heat exchanger inlet duct with a center baffle and triangular cross section.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEVON RUSSELL whose telephone number is (571)270-1858. The examiner can normally be reached on M-F, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DR  
3/21/2011

/J J Swann/  
Supervisory Patent Examiner, Art  
Unit 3785